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- (g) Pass the practical test on the areas of operation listed in §61.157(e) of this part that apply to the aircraft category and class rating sought; and
- (h) Comply with the sections of this subpart that apply to the aircraft category and class rating sought.

[Doc. No. 25910, 62 FR 16298, Apr. 4, 1997; Amdt. 61–103, 62 FR 40905, July 30, 1997; Amdt. 61–124, 74 FR 42559, Aug. 21, 2009]

§61.155 Aeronautical knowledge.

- (a) General. The knowledge test for an airline transport pilot certificate is based on the aeronautical knowledge areas listed in paragraph (c) of this section that are appropriate to the aircraft category and class rating sought.
- (b) Aircraft type rating. A person who is applying for an additional aircraft type rating to be added to an airline transport pilot certificate is not required to pass a knowledge test if that person's airline transport pilot certificate lists the aircraft category and class rating that is appropriate to the type rating sought.
- (c) Aeronautical knowledge areas. (1) Applicable Federal Aviation Regulations of this chapter that relate to airline transport pilot privileges, limitations, and flight operations;
- (2) Meteorology, including knowledge of and effects of fronts, frontal characteristics, cloud formations, icing, and upper-air data;
- (3) General system of weather and NOTAM collection, dissemination, interpretation, and use;
- (4) Interpretation and use of weather charts, maps, forecasts, sequence reports, abbreviations, and symbols;
- (5) National Weather Service functions as they pertain to operations in the National Airspace System;
- (6) Windshear and microburst awareness, identification, and avoidance;
- (7) Principles of air navigation under instrument meteorological conditions in the National Airspace System;
- (8) Air traffic control procedures and pilot responsibilities as they relate to en route operations, terminal area and radar operations, and instrument departure and approach procedures;
- (9) Aircraft loading, weight and balance, use of charts, graphs, tables, formulas, and computations, and their effect on aircraft performance;

- (10) Aerodynamics relating to an aircraft's flight characteristics and performance in normal and abnormal flight regimes;
 - (11) Human factors;
- (12) Aeronautical decision making and judgment; and
- (13) Crew resource management to include crew communication and coordination.

§61.157 Flight proficiency.

- (a) General. (1) The practical test for an airline transport pilot certificate is given for—
- (i) An airplane category and single engine class rating.
- (ii) An airplane category and multiengine class rating.
- (iii) A rotorcraft category and helicopter class rating.
 - (iv) A powered-lift category rating.
 - (v) An aircraft type rating.
- (2) A person who is applying for an airline transport pilot practical test must meet—
- (i) The eligibility requirements of §61.153; and
- (ii) The aeronautical knowledge and aeronautical experience requirements of this subpart that apply to the aircraft category and class rating sought.
- (b) Aircraft type rating. Except as provided in paragraph (c) of this section, a person who applies for an aircraft type rating to be added to an airline transport pilot certificate or applies for a type rating to be concurrently completed with an airline transport pilot certificate:
- (1) Must receive and log ground and flight training from an authorized instructor on the areas of operation under this section that apply to the aircraft type rating;
- (2) Must receive a logbook endorsement from an authorized instructor that certifies the applicant completed the training on the areas of operation listed under paragraph (e) of this section that apply to the aircraft type rating; and
- (3) Must perform the practical test in actual or simulated instrument conditions, except as provided under paragraph (g) of this section.
- (c) Exceptions. A person who applies for an aircraft type rating to be added to an airline transport pilot certificate

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or an aircraft type rating concurrently with an airline transport pilot certificate, and who is an employee of a certificate holder operating under part 121 or part 135 of this chapter, does not need to comply with the requirements of paragraph (b) of this section if the applicant presents a training record that shows completion of that certificate holder's approved pilot in command training program for the aircraft type rating.

- (d) Upgrading type ratings. Any type rating(s) and limitations on a pilot certificate of an applicant who completes an airline transport pilot practical test will be included at the airline transport pilot certification level, provided the applicant passes the practical test in the same category and class of aircraft for which the applicant holds the type rating(s).
- (e) Areas of operation. (1) For an airplane category—single engine class rating:
 - (i) Preflight preparation;
 - (ii) Preflight procedures;
- (iii) Takeoff and departure phase;
- (iv) In-flight maneuvers;
- (v) Instrument procedures;
- (vi) Landings and approaches to landings:
- (vii) Normal and abnormal procedures:
 - (viii) Emergency procedures; and
 - (ix) Postflight procedures.
- (2) For an airplane category—multiengine class rating:
 - (i) Preflight preparation;
 - (ii) Preflight procedures;
 - (iii) Takeoff and departure phase;
 - (iv) In-flight maneuvers;
 - (v) Instrument procedures;
- (vi) Landings and approaches to landings;
- (vii) Normal and abnormal procedures;
 - (viii) Emergency procedures; and
- (ix) Postflight procedures.
- (3) For a powered-lift category rating:
 - (i) Preflight preparation;
 - $(ii)\ Preflight\ procedures;$
 - (iii) Takeoff and departure phase;
 - $(iv) \ In\mbox{-flight maneuvers}; \\$
 - (v) Instrument procedures:
- (vi) Landings and approaches to landings;

(vii) Normal and abnormal procedures:

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- (viii) Emergency procedures; and
- (ix) Postflight procedures.
- (4) For a rotorcraft category—helicopter class rating:
- (i) Preflight preparation;
- (ii) Preflight procedures;
- (iii) Takeoff and departure phase;
- (iv) In-flight maneuvers;
- (v) Instrument procedures;
- (vi) Landings and approaches to landings;
- (vii) Normal and abnormal procedures:
 - (viii) Emergency procedures; and
 - (ix) Postflight procedures.
- (f) Proficiency and competency checks conducted under part 121, part 135, or subpart K of part 91. (1) Successful completion of any of the following checks satisfies the flight proficiency requirements of this section for the issuance of an airline transport pilot certificate and/or the appropriate aircraft rating:
- (i) A proficiency check under §121.441 of this chapter.
- (ii) Both a competency check under §135.293(a)(2) and §135.293(b) of this chapter and pilot-in-command instrument proficiency check under §135.297 of this chapter.
- (iii) Both a competency check under §91.1065 of this chapter and a pilot-incommand instrument proficiency check under §91.1069 of this chapter.
- (2) The checks specified in paragraph (f)(1) of this section must be conducted by one of the following:
- (i) An FAA Aviation Safety Inspector.
- (ii) An Aircrew Program Designee who is authorized to perform proficiency and/or competency checks for the air carrier whose approved training program has been satisfactorily completed by the pilot applicant.
- (iii) A Training Center Evaluator with appropriate certification authority who is also authorized to perform the portions of the competency and/or proficiency checks required by paragraph (f)(1) of this section for the air carrier whose approved training program has been satisfactorily completed by the pilot applicant.
- (g) Aircraft not capable of instrument maneuvers and procedures. An applicant may add a type rating to an airline

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transport pilot certificate with an aircraft that is not capable of the instrument maneuvers and procedures required on the practical test under the following circumstances—

- (1) The rating is limited to "VFR only."
- (2) The type rating is added to an airline transport pilot certificate that has instrument privileges in that category and class of aircraft.
- (3) The "VFR only" limitation may be removed for that aircraft type after the applicant:
- (i) Passes a practical test in that type of aircraft on the appropriate instrument maneuvers and procedures in §61.157; or
- (ii) Becomes qualified in §61.73(d) for that type of aircraft.
- (h) Multiengine airplane with a single-pilot station. An applicant for a type rating, at the ATP certification level, in a multiengine airplane with a single-pilot station must perform the practical test in the multi-seat version of that airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there is no multi-seat version of that multiengine airplane.
- (i) Single engine airplane with a single-pilot station. An applicant for a type rating, at the ATP certification level, in a single engine airplane with a single-pilot station must perform the practical test in the multi-seat version of that single engine airplane. The practical test may be performed in the single-seat version of that airplane if the Examiner is in a position to observe the applicant during the practical test in the case where there is no multi-seat version of that single engine airplane.
- (j) Waiver authority. An Examiner who conducts a practical test may waive any task for which the FAA has provided waiver authority.

[Doc. No. FAA-2006-26661, 74 FR 42560, Aug. 21, 2009; Amdt. 61-124A, 74 FR 53647, Oct. 20, 2009]

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§61.159 Aeronautical experience: Airplane category rating.

- (a) Except as provided in paragraphs (b), (c), and (d) of this section, a person who is applying for an airline transport pilot certificate with an airplane category and class rating must have at least 1,500 hours of total time as a pilot that includes at least:
- (1) 500 hours of cross-country flight time.
- (2) 100 hours of night flight time.
- (3) 75 hours of instrument flight time, in actual or simulated instrument conditions, subject to the following:
- (i) Except as provided in paragraph (a)(3)(ii) of this section, an applicant may not receive credit for more than a total of 25 hours of simulated instrument time in a flight simulator or flight training device.
- (ii) A maximum of 50 hours of training in a flight simulator or flight training device may be credited toward the instrument flight time requirements of paragraph (a)(3) of this section if the training was accomplished in a course conducted by a training center certificated under part 142 of this chapter.
- (iii) Training in a flight simulator or flight training device must be accomplished in a flight simulator or flight training device, representing an airplane.
- (4) 250 hours of flight time in an airplane as a pilot in command, or as second in command performing the duties of pilot in command while under the supervision of a pilot in command, or any combination thereof, which includes at least—
- (i) 100 hours of cross-country flight time; and
 - (ii) 25 hours of night flight time.
- (5) Not more than 100 hours of the total aeronautical experience requirements of paragraph (a) of this section may be obtained in a flight simulator or flight training device that represents an airplane, provided the aeronautical experience was obtained in an approved course conducted by a training center certificated under part 142 of this chapter.
- (b) A person who has performed at least 20 night takeoffs and landings to